INSTRUCTION MANUAL & PARTS BOOK

EDGER TROWEL

MODELS:
24” EDGER / 30” EDGER

Use this guide along with the parts lists attached to locate and identify components of your trowel.
When ordering replacement parts, be sure to provide the model number and serial number from the trowel.

POWERFUL - EFFICIENT - DEPENDABLE

BARTELL MORRISON INC.
375 ANNAGEM BLVD, MISSISSAUGA, ONTARIO, CANADA, L5T 3A7, 905-458-5455 FAX 905-458-5484

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OI-B09002
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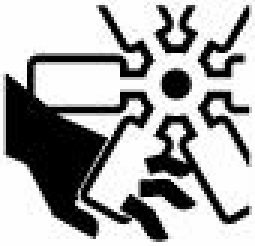
SAFETY PRECAUTIONS	
	⚠ **DANGER** **EXPLOSION HAZARD** Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes.
	WARNING **BURN HAZARD** Never come into contact with the engine or muffler when engine is operating or shortly after it is turned off. Serious burns may occur.
	⚠ **CAUTION** **ROTATING HAZARD** Never place hands or feet inside safety guard rings. Serious injury will result from contact with rotating blades.
	⚠ **CAUTION** **MOVING PARTS** Before starting the machine ensure that all guards and safety devices are in place and functioning properly.
	⚠ **ATTENTION** **READ OWNERS MANUAL** Read and understand operator's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.

EDGER TROWEL INSTRUCTION MANUAL

TABLE OF CONTENTS

QUALITY ASSURANCE/MACHINE BREAK-IN 4
EDGER POWER TROWEL WARRANTY 5
MAINTENANCE RECORD 6
ROUTINE SERVICE INTERVALS 7
FOREWORD 9
SAFETY PRECAUTIONS 9
ASSEMBLY INSTRUCTIONS 9
OPERATION (FLOATING) 9
OPERATION (FINSHING) 9
1. STARTING PROCEDURES - WARM TEMPERATURES 10
2. STARTING PROCEDURES - COLD TEMPERATURES 10
3. STOPPING PROCEDURES 10
MAINTENANCE 10
1. AIR CLEANER 10
2. LUBRICATION 10
3. SPARK PLUG 10
4. BELT TENSION 10
TRANSPORTING 10
LUBRICATION 10
1. ENGINE OIL 10
2. SPIDER PLATE 10
3. GEARBOX 10
ENGINE OIL SPECIFICATIONS 10
STORAGE 10
ASSEMBLY DRAWINGS AND PARTS LIST 11
1. EDGER TROWEL ASSEMBLY (FIGURE 1) 12
EDGER TROWEL PARTS LIST - B424 14
2. SPIDER PLATE ASSEMBLY (FIGURE 2) 16
SPIDER PLATE ASSEMBLY PARTS LIST 17
3. GEARBOX ASSEMBLY (FIGURE 3) 18
4. FOLDING HANDLE ASSEMBLY (FIGURE 4) 19
FOLDING HANDLE ASSEMBLY PARTS LIST 20
TROUBLESHOOTING 21
SPECIFICATIONS 22
COMPANY INFORMATION 23
NOTES 25

QUALITY ASSURANCE / MACHINE BREAK IN

The Bartell Edger Power Trowel is the product of extensive engineering development designed to give long life and unmatched performance. The Edger Power Trowels are shipped fully assembled, and only require filling with fuel and a brief check of lubricant levels in preparation for operation.

You can help ensure that your Power Trowel will perform at top levels by observing a simple routing on first use. Consider that your new Power Trowel is like a new car. Just as you would break in a new car to the road or any new machine to the job, you should start gradually and build up to full use. Learn what your machine can do and how it will respond. Refer to the engine manufacturer's manual for run-in times. Full throttle and control may be used after this time period, as allowed by material. This will serve to further break in the machine on your specific application, as well as provide you with additional practice using the machine.

We thank you for the confidence you have placed in us by purchasing a Bartell Edger Power Trowel and wish you many years of satisfied use.

EDGER POWER TROWEL WARRANTY

- All products sold by Bartell Morrison Inc. are warranted against defects in materials and/or workmanship; excluding normal wear on wearing components and components covered by a separate original manufacturers warranty, for a period of 24 months from the date of sale to the original end user purchaser provided that certain conditions have been met.

  Conditions:

  1. The equipment serial number has been registered with Bartell Morrison Inc. or its approved dealers, distributors, representatives or agents.
  2. The equipment has been operated in an appropriate manner by qualified individuals.
  3. The equipment has been properly maintained as per the instructions included in the Owner's Manual.
  4. All claims for warranty must be filed on proper forms and include the serial number of the equipment along with proof of purchase.

  Any evidence of failure to meet these conditions may result in a denial of the warranty claim.
- Consideration of warranty claims will be at the sole discretion of Bartell Morrison Inc., or its authorized dealers, distributors, representatives or agents.
- Bartell Morrison Inc. may, at its discretion, request that the equipment to be considered for warranty be returned at the owner's expense to an authorized repair facility for inspection.
- Under this warranty we may, at our discretion, repair or replace a part or the whole of the defective component or equipment.
- Our Warranty coverage is limited to the cost to repair or replace the defective portion of the equipment and a reasonable (as determined by Bartell Morrison Inc.) amount of labour to conduct the repair or replacement. Under no circumstances shall Bartell Morrison Inc. be liable for any additional or exceptional costs beyond the cost to repair or replace the defective portion of the equipment. Bartell Morrison Inc. shall not be held accountable for; costs associated with travel to inspect or repair defective equipment, costs for transporting defective equipment to or from an authorized repair facility, costs incurred to repair or replace the defective equipment at any facility other than one authorized by Bartell Morrison Inc., or ancillary damage caused by or as a result of the defective equipment.
- Under no circumstances shall equipment be returned to Bartell Morrison Inc. or its authorized dealers, distributors, representatives or agents without the approval of Bartell Morrison Inc. as evidenced by a Returned Goods Number. To obtain a Returned Goods Number contact the factory or your authorized dealer, distributor, representative or agent.
- This warranty is for the sole benefit of the original end user purchaser and is not transferable to any other company or person.

MAINTENANCE RECORD

PREVENTATIVE MAINTENANCE AND ROUTINE SERVICE PLAN

This Edger Power Trowel has been assembled with care and will provide years of service. Preventative maintenance and routine service are essential to the long life of your Power Trowel. Your dealer is interested in your new machine and has the desire to help you get the most value from it. After reading through this manual thoroughly, you will find that you can do some of the regular maintenance yourself. However, when in need of parts or major service, be sure to see your Bartell Morrison dealer. For your convenience we have provided this space to record relevant data about your Edger Power Trowel. When in need of parts or service be prepared to provide your Trowel serial number. Locate the serial number now and record in the space below.

Date Purchased:		Type of Machine:	
Dealer Name:		Model:	
Dealer Phone:		Serial Number:	

REPLACEMENT PARTS USED				MAINTENANCE LOG	
PART NO.	QUANTITY	COST	DATE	DATE	OPERATION

Routine Service Intervals		Each use	After 1.5 months or 50 hrs	Each 3 months or 100 hrs	Each 6 months or 200 hrs	Each 9 months or 300 hrs	Each 12 months or 400 hrs
General Inspection:							
Guards	Check		o	o	o	o	o
Warning stickers	Check		o	o	o	o	o
Test run	Check operation		o	o	o	o	o
Controls:							
Dead-man switch operation	Check	o	o	o	o	o	o
Pitch control assembly	Check	o	o	o	o	o	o
	Lubricate		o	o	o	o	o
Engine:							
Engine oil	Check Level	o	o	o	o	o	o
	Change		o		o		o
Engine oil filter	Replace				o		o
Oil cooler	Clean			o	o	o	o
Cooling Fins	Clean		o	o	o	o	o
Air cleaner	Check - clean	o	o	o	o	o	o
	Replace						o
Air Intake Line	Check				o		
	Replace						2 yrs
Fan Belt	Check tightness				o		o
	Replace						500 hrs
Valve clearance	Check-adjust				o		o
Fuel filter	Check & Clean			o	o	o	o
	Replace				o		o
Fuel Tank	Clean						500 hrs
Engine wiring	Check						o
Drive Train:							
Clutch / Pulley operation	Check	o	o	o	o	o	o
Spider plate assembly	Check	o	o	o	o	o	o
	Lubricate				o		o
V-Belt	Check	o	o	o	o	o	o
Blades	Check	o	o	o	o	o	o
Gearbox:							
Gearbox oil	Check Level				o		o
	Change	o			o		o
Gearbox breathers	Check operation			o	o	o	o

Routine Service Intervals

Due to the nature and environment of use, Edger Power Trowels could be exposed to severe operating conditions. Some general maintenance guidelines will extend the useful life of your trowel.

- The initial service for your power trowel should be performed after 25 hours of use, at which time your mechanic (or authorized repair shop) should complete all of the recommended checks in the schedule above. The chart on page 6 (six) is handy for keeping a record of the maintenance performed and the parts used for servicing your trowel.
- Regular service according to the schedule above will prolong the life of the Edger Power Trowel and prevent expensive repairs.
- Keeping your Edger Power Trowel clean and free from debris is the single most important regular maintenance operation, over and above the checks in the service schedule above, that can be performed. After each use your Edger Power Trowel should be cleaned to remove any dust and debris from the undercarriage and surrounding components. Use of a power washer will make clean up quick and easy, especially if a non-stick coating was applied prior to use.
- In the Service Schedule above, items that should be checked, replaced or adjusted are indicated by “o” in the appropriate column. Not all Edger Power Trowel models include the same features and options and as such not all service operations may have to be performed. For ease of recording place a checkmark (√) through the “o” when the item is complete. If an item is not required or not completed place an “x” through the “o” in the box.
- All Edger Power Trowels have governed engine speed of 3600 rpm. See engine manufacturer’s manual for exact specifications. Care should be used when making any adjustments to the Edger Power Trowel not to change the governed speed. Running the engine at lower rpm’s will result in a decrease of compaction force and lower travel speed. It will create excessive “out-of-synch” vibrations resulting in poor compaction, maneuverability, excessive wear to the machine, and discomfort to the operator.
- Failure to have your Edger Power Trowel regularly serviced and properly maintained in accordance with the manufacturer’s instructions will lead to premature failure and void the warranty.

FOREWORD

The Bartell Edger Power Trowel, also known as a Mini-trowel/Edger, has been developed to float and finish the edges of concrete floors, up to perimeter walls, around columns and small areas, eliminating tiring hand troweling and increasing overall productivity and quality.

SAFETY PRECAUTIONS

- Always keep unauthorized, inexperienced, untrained people away from this machine.
- Rotating and moving parts will cause injury if contacted. Make sure guards are in place. Keep hands and feet away from moving parts.
- Fuel the machine only when the engine is stopped, using all necessary safety precautions.
- The engine must always be stopped before attempting any repair or adjustments. Ignition switch should be off.
- To avoid slipping and loss of control when starting the trowel, the operator should maintain good footing. It is recommended that the operator wear safety shoes for added protection.
- Be careful when working around pipes or ducts protruding from the floor or slab edges. If the trowel blades hit such obstacles, damage to the machine or possible operator injury may result.
- When starting the machine, do not exceed 1/3 throttle position. A higher setting may cause the centrifugal clutch to engage and the handle to rotate.
- Be careful not to come in contact with the muffler when the engine is hot, serious burns may result!
- Over time, the blades will form a sharp edge. Be careful when handling the old blades.

DANGER:
Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes. Repair fuel leaks immediately. Refer to your engine owner's manual for more safety instructions.

ASSEMBLY INSTRUCTIONS

Your new Bartell Edger Power Trowel has been shipped to you fully assembled. All you need to do is unfold the handle and fasten the knob. Remove any shipping or packing materials. Be sure to remove and discard the band securing the safety/stop switch to the left handle. This serves only to facilitate shipping and is not intended to be a permanent feature. When removing the machine from the carton, be careful to use the handles to left the unit from the carton. NEVER LIFT THE MACHINE BY THE RING OR DISC. Filling the fuel tank and a brief check of lubricant levels in preparation for operation is required.

IMPORTANT:
Before running machine with belt installed, ensure that engine idles properly and that the safety-switch shuts off the engine.

ATTENTION:
For any information regarding engine adjustments, please refer to the engine manual supplied.

OPERATION (Floating)

When the slab has set sufficiently firm that the operator's footprint leaves a very slight depression on the surface of the slab, it is ready for the floating operation.

Guiding the machine on the slab is very simple, a slight upward lift of the handle causes the machine to travel to the left. Holding the handle in the neutral position, will slowly cause the machine to spin in one spot. Slight downward pressure on the handle causes the machine to travel to the right. Best results are obtained by covering approximately 4" on each turn. In other words, let the machine move right or left, backwards or forwards, approximately 4" with each revolution of the trowels. To fill a hole or cut down a hump, move the unit back and forth over the problem area.

Under normal operating conditions the machine should cover as much as 1000 sq. ft. in about 15 minutes. It is recommended that a slight tension on the trowel control cable, (but *not* a definite tilt), during the floating operation will cause the machine to operate much smoother. After the floated slab has set sufficiently, it is ready for the finishing operation.

CAUTION:
Do not let the machine stand in one spot on the soft cement. Lift from the slab when the floating operation is complete.

OPERATION (Finishing)

When starting the finishing operation, never set the trowels up over 1/4" pitch.

After the floating operation, the first thing to do is to remove the floating disc from the blades. Clean the blades, spider plate and disc from cement paste collected during the floating operation. Increase the blade pitch up to a maximum of 1 cm for the first finishing operation and then continue to increase the pitch on the following finishing operations. Continue the finishing passes until you obtain the desired floor finish. The time required between each finishing pass is again dependent on the weather conditions and water content of the concrete etc. If some areas of the concrete set/harden too fast you may apply a small amount of water using a hand brush as an aid to achieving the finish.

STARTING PROCEDURE: **WARM CLIMATE*

Open fuel valve on gas tank. Set throttle lever to "Fast" idle position, set choke to closed position, start engine. Open choke slightly to prevent flooding. Move to "Open" or "Run" position when engine is warm, increase throttle to maximum operation position (3600 rpm).

STARTING PROCEDURE: **COLD CLIMATE*

Follow same procedure as above but allow longer warm-up period – 3 to 5 minutes. In cold weather, oil is much heavier to move and requires more time to work its way into the moving parts. If maximum power is not attained, allow further warm-up time.

STOPPING PROCEDURE

1. Throttle engine down.
2. Turn off stop switch.

MAINTENANCE

Maintaining your Edger Power Trowel will insure long life to the machine and its components.

AIR CLEANER - Keep air filter clean at all times. Wash away dust and debris using a non-oil based cleaning solvent. Let the filter dry before re-installing.

LUBRICATION – Always check engine oil regularly. Use proper engine oil as recommended. See chart on this page. Fill crankcase to levels as recommended in manufacture's engine manual.

SPARK PLUG – Check and clean spark plugs regularly. A fouled, dirty or carboned spark plug causes hard starting and poor engine performance. Set spark plug gap to recommended clearance. Refer to engine manual.

BELT TENSION – IMPORTANT!

When the engine is switched off, and the machine has stopped, the normal belt play should be loose. This is due to the clutch type. When the machine is running at full throttle, the clutch will close in, which tightens the belt causing the gearbox to engage.

When adjusting the belt make sure that the clutch is in alignment with the follower pulley. Secure belt guard. Tighten all engine mount bolts, and tighten lock nuts.

TRANSPORTING

When transporting the trowel, always keep the handle folded and the blades flat on the floor to prevent damage to the pitch control system. Always keep the floating disc underneath the blades to protect them against damage.

CAUTION:
Never lift the trowel by the rotating ring; use the hoist hook or handle provided on the trowel. Remove the float disc when lifting machine more than 100cm (40in). The floating disc could fall off.

LUBRICATION

1. ENGINE OIL

The long life and successful operation of any piece of machinery is dependent on frequent and thorough lubrication.

Before using the trowel, always check your engine for oil. Use proper engine oil as recommended in the engine manufacturer's manual. Fill crankcase to levels as recommended.

ENGINE OIL SPECIFICATIONS

Season Temperature	Grade of Engine Oil
Spring to Autumn +40°F (4°C) to +120°F (49°C)	SAE 30
Winter +15°F (-9°C) to +40°F (4°C)	SAE 20
Below +15°F (-9°C)	SAE 10W-30

2. SPIDER PLATE

The trowel arm on the spider plate does not require lubrication. If a trowel arm becomes jammed, this is probably due to a bent arm, which will require replacement. Appropriate "winterize" steps should be taken if the machine is going to be stored for long periods of time.

3. GEARBOX

In operation the gearbox lubricant is in a fluid state. When the machine is stopped the lubricant returns to a gel state. It will only be necessary to inspect the sealed components if the outside of the gearbox gets too oily or otherwise shows evidence of a leak. If this happens, clean the machine thoroughly and look for leaks. Effect necessary repairs immediately. Use SHELL TIVELA COMPOUNDS 'A' (0.3L, 10.1oz.) gear oil or equivalent to top up the gear box after any maintenance to the internal components.

STORAGE

The following steps should be taken to prepare your Edger Power Trowel for extended storage.

1. Close fuel shut off valve.
2. Siphon excess gasoline from tank.
3. Start engine until it stops from lack of fuel. This will use up all the fuel in the carburetor and prevent formation of deposits due to evaporation of fuel.
4. Remove spark plug and pour 2 oz. of SAE-30 or SAE-40 motor oil into the cylinder. Slowly crank the engine 2 or 3 times to distribute the oil throughout the cylinder. This will help prevent rust during storage. Replace spark plug.
5. Store the unit in an upright position in a cool, dry, well ventilated area.

ASSEMBLY DRAWINGS AND PARTS LIST

EDGER POWER TROWEL ASSEMBLY

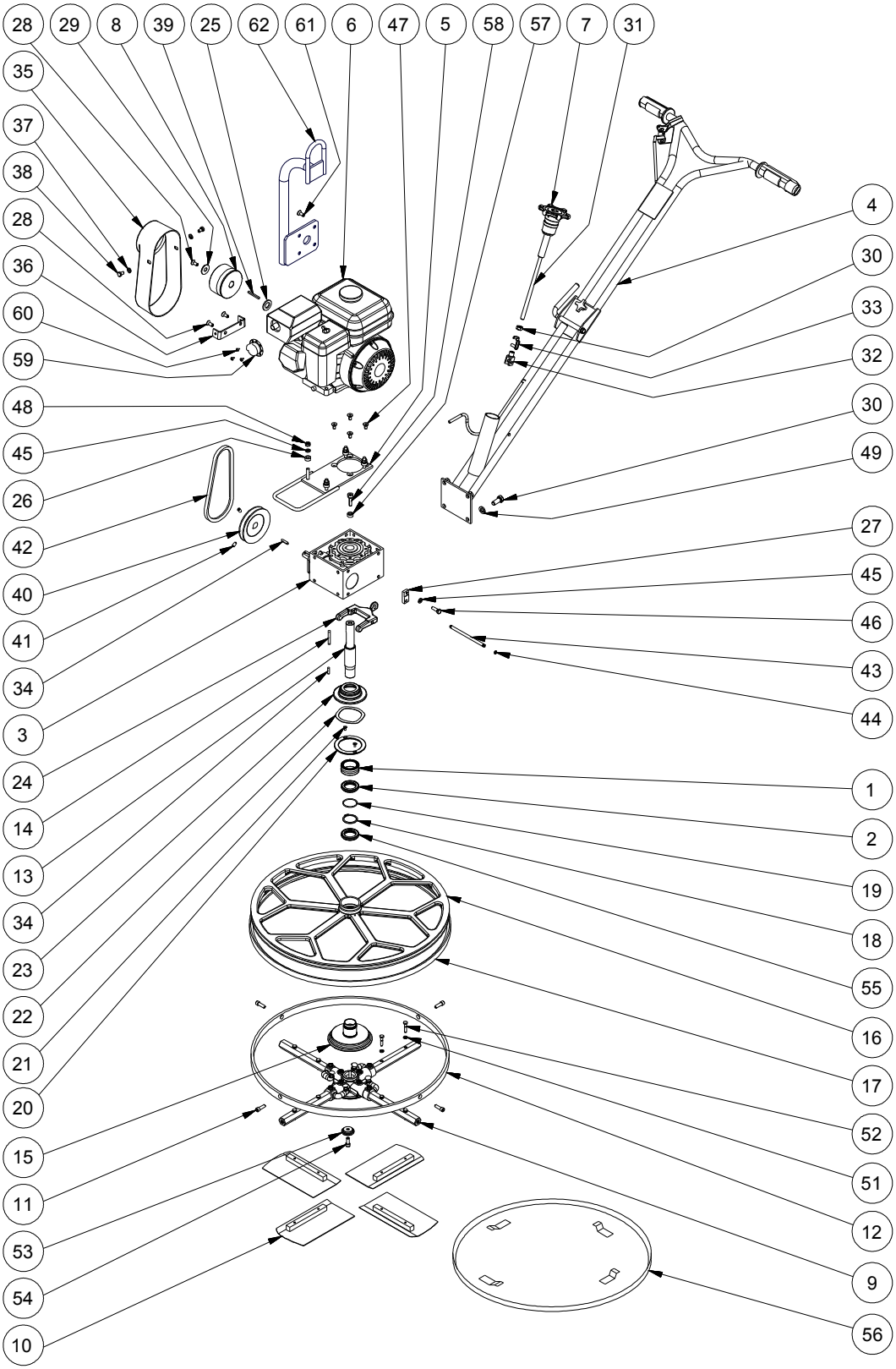


Figure 1 - Complete Edger Trowel

EDGER POWER TROWEL ASSEMBLY

Item #	Description	Item #	Description	Item #	Description
1	Thrust Bearing	21	Flat Head Screw	43	Pin
2	Thrust Bearing	22	Wave Washer	44	Retaining Ring
3	Gearbox	23	Thrust Bearing Cap	45	Lock Washer
4	Folding Handle	24	Yoke Arm	46	Hex Bolt
5	Engine Mount Plate	25	Clutch Spacer	47	Flat Head Bolt
6	Engine	26	Spacer	48	Nut
7	Pitch Control Ass'y	27	Pin Support	49	Lock Washer
8	Clutch	28	Clutch Bolt	50	Key
9	Spider Plate	29	Washer	51	Lock Nut
10	Trowel Blades	30	Hex Bolt	52	Hex Bolt
11	Socket Bolt	31	Threaded Rod	53	Retainer
12	Stabilizer Ring	32	Yoke Tip	54	Socket Bolt
13	Shaft	33	Lock Clip	55	Bearing
14	Key	34	Key	56	Float Pan
15	Pressure Plate	35	Belt Guard	57	Retainer
16	Guard Ring	36	Bracket	58	Socket Bolt
17	Rubber Belt Guard	37	Lock Washer	59	Muffler Cap
18	Retaining Ring	38	Hex Bolt	60	Screw
19	Retaining Ring	39	Key	61	Flat Head Screw
20	Friction Washer	40	Pulley	62	Hoist Hook (option)
21	Flat Head Screw	41	Set Screw		
20	Friction Washer	42	Belt		

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BARTELL MORRISON INC.

CUSTOMER PARTS LIST

Assembly # **Edger**
Assembly

Item #	B424	B430	Description	Qty	Eff. Date
1	11660	11660	Bearing, Needle Roller	1	6/8/2004
2	11628	11628	Bearing	1	6/8/2004
3	11770	11770	Gearbox	1	6/8/2004
4	21612	21612	Folding Handle Ass'y	1	6/8/2004
5	11752	11752	Engine Mounting Plate	1	6/8/2004
6	21340	21333	Honda Engine	1	6/8/2004
7	21603	21603	Hand Knob Ass'y	1	6/8/2004
8	21006	21006	Clutch	1	6/8/2004
9	21616	11815	Spider Plate Ass'y	1	6/8/2004
10	20455	20407	Trowel Blade, Combo	4	6/8/2004
11	11769	11769	SHCS M8 x 16mm	4	6/8/2004
12	11758	11813	Stabilizer Ring,	1	6/8/2004
13	11755	11755	Main Shaft,	1	6/8/2004
14	11639	11639	Key, 8mm x 7mm x 50mm LG	1	6/8/2004
15	11756	11756	Pressure Plate	1	6/8/2004
16	11652	11810	Rotating Ring,	1	6/8/2004
17	11640	11812	Belt, Rotating Ring (T-Belt)	1	6/8/2004
18	11631	11631	Retaining Ring	1	6/8/2004
19	11632	11632	Retaining Ring	1	6/8/2004
20	11774	N/A	Friction Washer	1	6/8/2004
21	52180	N/A	FHMS 10-24 x 3/8"LG	2	6/8/2004
22	11775	11775	Wave Washer	1	6/8/2004
23	11655	11655	Thrust Bearing Cap	1	6/8/2004
24	11672	11672	Yoke Arm	1	6/8/2004
25	10306	10306	Washer	1	6/8/2004
26	10104	10104	Spacer	4	6/8/2004
27	11740	11740	Set, Pin Support LH + RH	1	30/4/2007
28	30041	30041	FHSCS 5/16-24 UNF x 3/4"	2	6/8/2004
29	30042	30042	Clutch Retainer Washer	1	6/8/2004
30	11622	11622	Hex Nut 10mm	1	6/8/2004
31	11771	11771	Tie Rod 9"	1	6/8/2004
32	11633	11633	Yoke Tip	1	6/8/2004
33	11634	11634	Yoke Clip	1	6/8/2004
34	11638	11638	Key, 6mm SQ x 25mm LG	1	6/8/2004
35	11662	11662	Belt Guard	1	6/8/2004
36	11669	11669	Belt Guard Support Bracket	1	6/8/2004
37	10402	10402	Lock Washer, 5/16"	2	6/8/2004
38	10409	10409	HHCS 5/16-18 x 1/2"LG	2	6/8/2004
39	10206	10206	Key, 3/16"Sqx1 7/8"LG	1	6/8/2004
40	11685	11685	Pulley, 4.5" DIA X 3/4" BORE	1	6/8/2004
41	50117	50117	SHSS, 5/16-18x0.57UNC, CUP POINT	2	6/8/2004
42	11007	11007	V-Belt 4L-260	1	6/8/2004
43	11646	11646	Yoke Pin	1	6/8/2004
44	11645	11645	Retaining Ring, 5100-0031	2	6/8/2004

Continued on next page…

CUSTOMER PARTS LIST

Assembly # **Edger**
Assembly - *Continued*

Item #	B424	B430	Description	Qty	Eff. Date
45	11614	11614	Lockwasher,M8,Split,Din 127, Zinc Plated	6	12/01/04
46	11619	11619	HHCS M8-1.25 x 25mm, Zinc Plated	2	12/01/04
47	11681	11681	FHSCS M8-1.25 x 16mm	4	12/01/04
48	11615	11615	Hex Nut 8mm	4	12/01/04
49	11621	11621	10mm Lock Washer	4	12/01/04
50	11690	11690	Key 6mm SQ x 30m LG	1	12/01/04
51	10521	10521	Lock Washer, 1/4"	8	12/01/04
52	11682	10523	HHCS 1/4-20 x 1-1/4'LG / M6-1.00 x 35mm	8	12/06/07
53	11765	11765	Retainer Plate	1	12/01/04
54	11772	11772	SHCS M8-1.25 x 25mm	1	12/01/04
55	11627	11627	Bearing 61808 2RS	1	12/01/04
56	11766	11811	Float Pan	1	12/01/04
57	11767	11767	Retainer	1	12/01/04
58	11753	11753	SHCS M10 x 1.5 x 35mm	1	12/01/04
59	11112	11112	Muffler Cap	1	12/01/04
60	11115	11115	Screw	2	12/01/04
61	30024	30024	FHSCS 5/16-24 x 1"LG	4	12/01/04
62	20189	20189	Hoist Hook	1	12/01/04

SPIDER PLATE ASSEMBLY

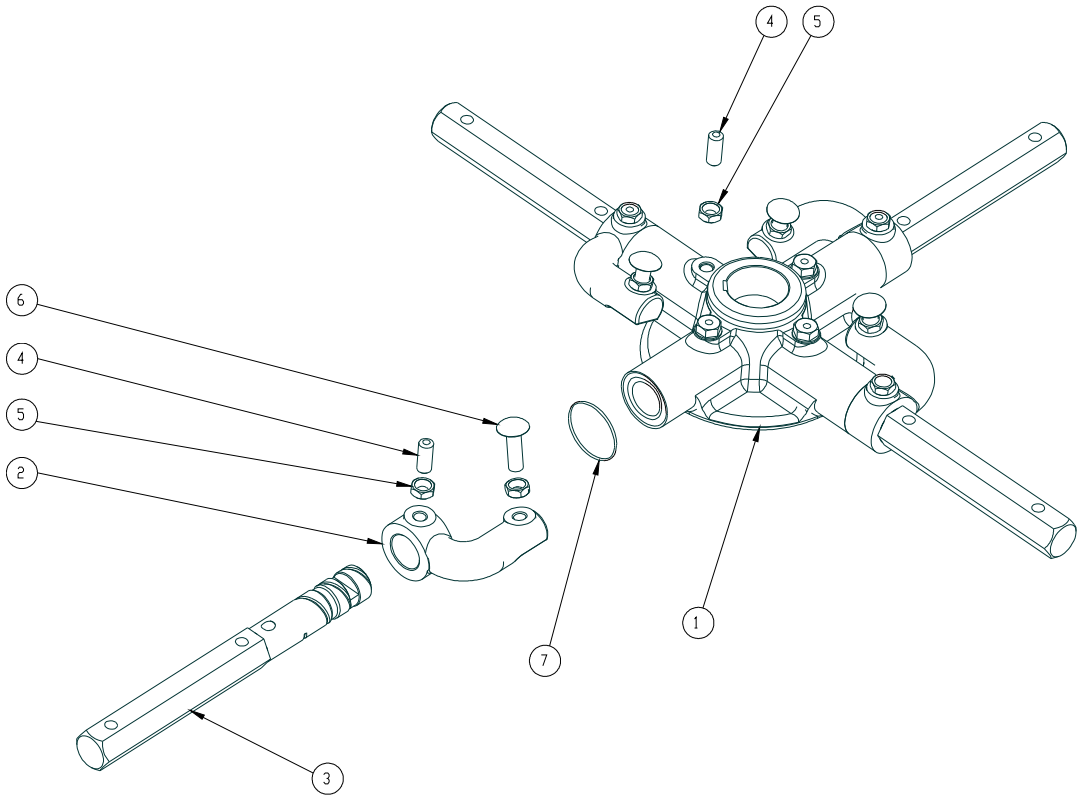


Figure 2 – Oil-Bath Spider Plate Assembly

Item #	Description	Item #	Description
1	Spider Plate	5	Jam Nut
2	Lift Lever	6	Carriage Bolt
3	Trowel Arm	7	Oil Seal
4	Set Screw		

CUSTOMER PARTS LIST

Assembly # **Spider Plate Assembly**
B424, B430

Item #	**B424**	**B430**	Description	Qty	Eff. Date
1	11757	11757	Oil Lubricated Spider Plate	1	1/1/1997
2	11754	11754	Lift Lever, Small	4	1/1/1997
3	11759	11817	Trowel Arm, Small	4	1/1/1997
4	11762	11762	Set Screw, M8 x 20mm	8	9/5/2000
5	11760	11760	Jam Nut, M8	12	1/1/1997
6	11763	11763	Carriage Bolt, M8 x 20mm	4	1/1/1997
7	11761	11761	Oil Seal	4	1/1/1997

MOTOVARIO 'NRV' GEARBOX

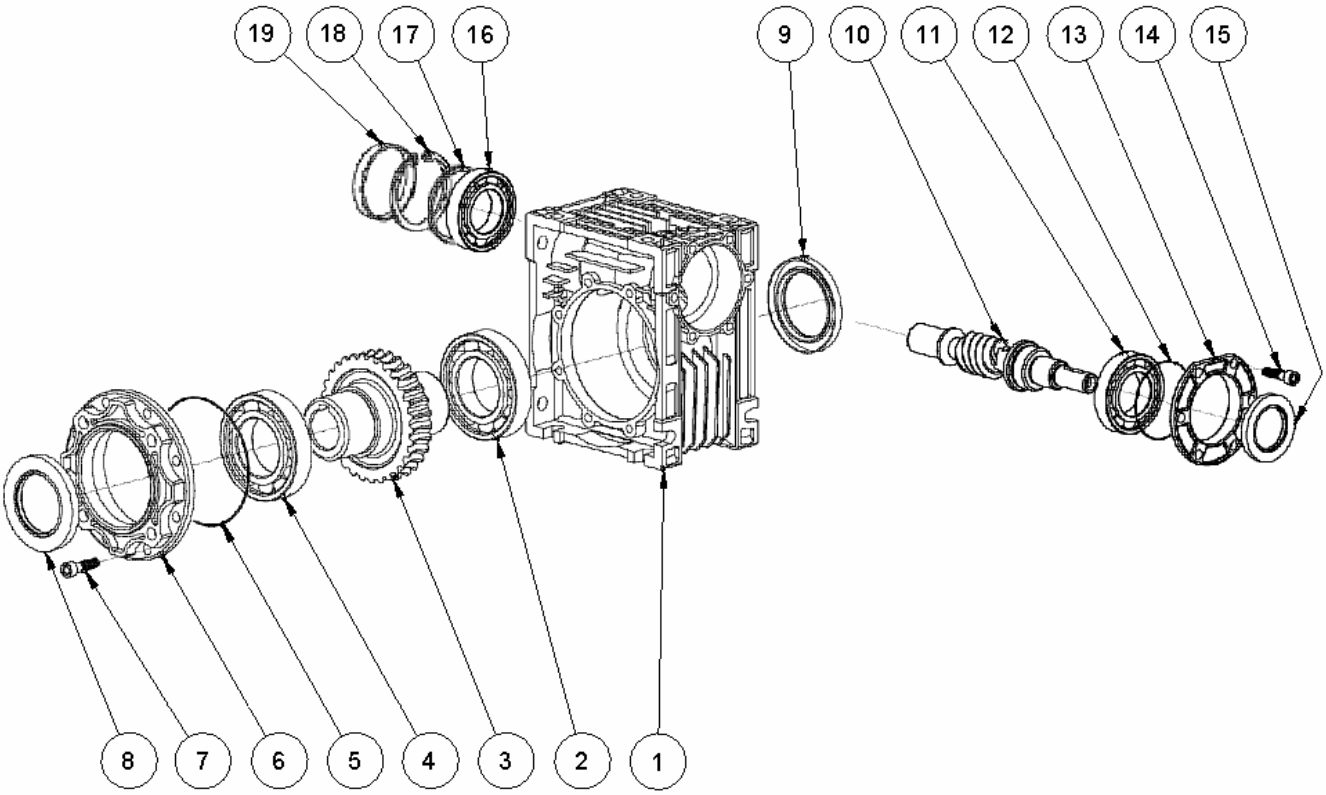


Figure 3 – Motovario NRV Gearbox

Note: Bartell Morrison does not supply replacement parts for this gearbox. (Prt. #11770)
Please contact Motovario for any information.

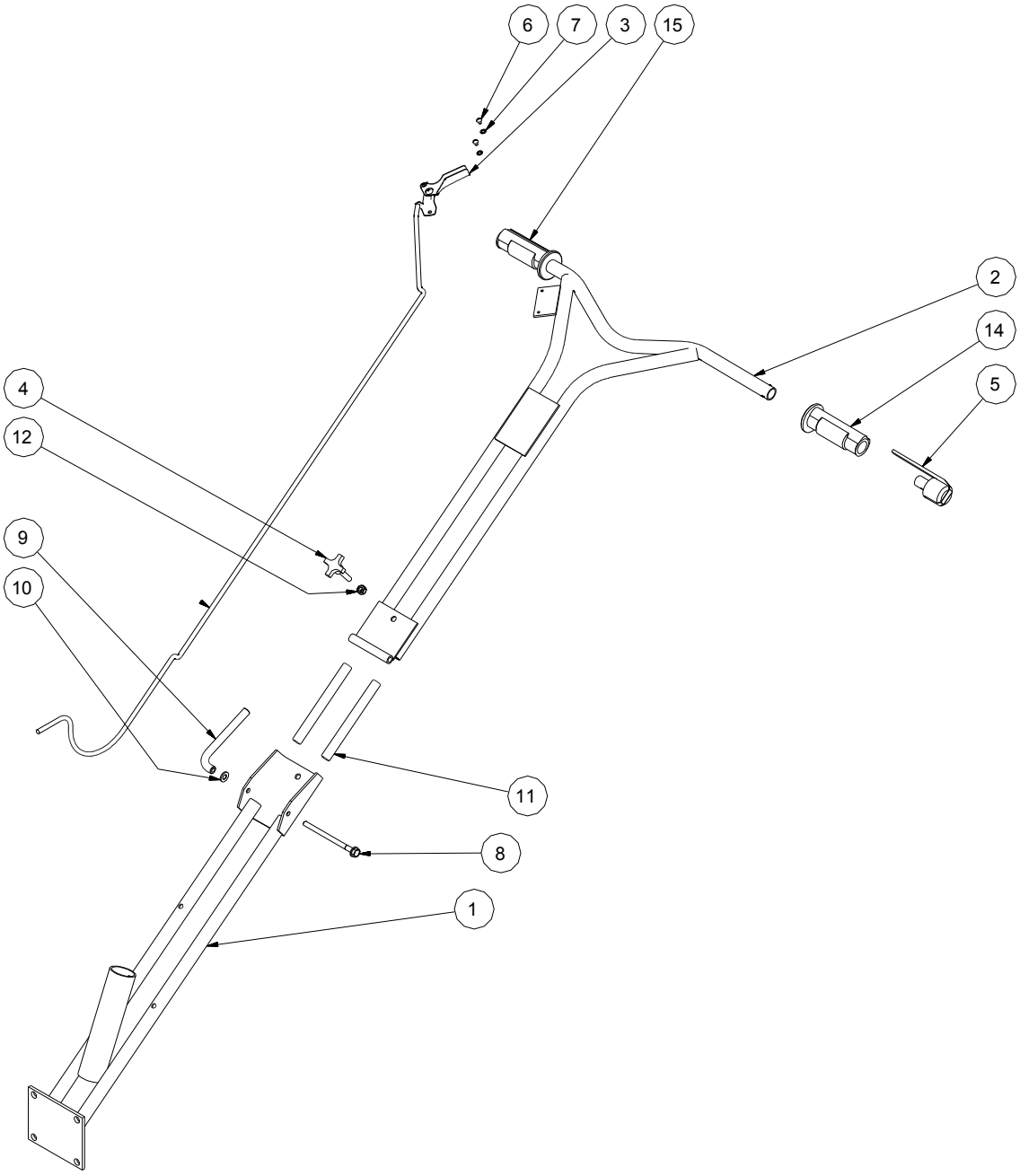
Item #	Description	Item #	Description
1	Casing (9.063.01)	11	Bearing (30305)
2	Bearing (6009)	12	O-Ring (3225)
3	Worm Wheel (9.063.11)	13	Gear Unit Cover (9.063.06)
4	Bearing (6009)	14	Socket Screw (DIN 912 M8x18)
5	O-Ring (540)	15	Oil Seal (DIN 3760 AS 25x52x7)
6	Bearing Support Cover (9.063.02)	16	Bearing (NRV 30205)
7	Socket Screw (M8x18)	17	Spacer (DIN 988 42x52x2.5)
8	Oil Seal (AS 45x65x10)	18	Circlip (D472 52)
9	Oil Seal (AS 45x65x10)	19	Cap (RCA 52x7)
10	RV Worm Shaft (42x52x2.5)		

FOLDING HANDLE ASSEMBLY

Figure 4 - Flexible Handle Assembly

Note: Not all items shown above may be included with your trowel, refer to attached parts list.

Item #	Description	Item #	Description	Item #	Description
1	Lower Handle	6	Screw	11	Tube w/ Spring
2	Upper Handle	7	Lock Washer	12	Lock Nut
3	Throttle Control	8	Hex Bolt	14	Handle Grip, Left
4	Hand Knob	9	Lever Nut	15	Handle Grip, Right
5	Deadman Lever	10	Flat Washer		



CUSTOMER PARTS LIST

Assembly # **21612**
Folding Handle Assembly (B424, B430)

Item #	Part #	Description	Qty	Eff. Date
1	21611	Lower Handle	1	1/1/1997
	21625	Lower Handle (CE Spec)	1	1/1/1997
2	21601	Upper Handle	1	08/17/2007
3	10508	Throttle Assembly, Cable c/w Lever	1	08/17/2007
4	11612	Hand Knob	1	1/1/1997
5	11643	Deadman Lever	1	1/1/1997
6	10513	RHMS #10-24UNC x 1/4”LG	2	1/1/1997
7	10703	Lock Washer, Internal Tooth, #10 Dia	2	1/1/1997
8	11725	HHCS 5/16-18 x 4-1/2”LG	1	1/1/1997
9	11724	Lever Nut	1	1/1/1997
10	10919	Flat Washer, 5/16”Dia	1	1/1/1997
11	20552	Tube w/ Spring	2	1/1/1997
12	10108	Nylock Nut, 5/16-18	1	1/1/1997
14	11641	Handle Grip, Left	1	02/01/2008
15	11642	Handle Grip, Right	1	02/01/2008

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TROUBLESHOOTING

WON'T START
- **Throttle fully open**
- **Hand lever wire broken**
- **No gas**
- **Dirty gas**
- **No oil**
- **Gas filter plugged**
- **Gas line plugged**
- **Hole in gas line**
- **Gas supply valve turned off**
- **Dead-man safety switch is off**
- **Safety switch wire or connectors not making good contact**
- **Other engine problems (Refer to engine manual)**

STARTS BUT NO HIGH SPEED
- **Engine problems**
- **Throttle cable broken or seized**
- **Throttle lever and connectors loose or out of adjustment**
- **Clutch shoes worn**

STARTS AT HIGH SPEED, WON'T SLOW DOWN
- **Same as above**

ENGINE WON'T STOP
- **Safety switch, wire or connectors not making good contact**
- **Micro-switch burnt out**

ENGINE STARTS BUT WON'T TURN TROWELS AT ANY SPEED
- **Clutch seized**
- **No weights or broken clutch**
- **Wrong belt**
- **Broken or missing key**
  - **Clutch**
  - **Pulley**
  - **Worm gear (countershaft)**
  - **Main gear**
  - **Spider plate**
- **Gearbox seized**

TROWELS TURN, ENGINE AT IDLE
- **Idle too fast**
- **Belt too tight**
- **Clutch seized**
- **Pulley out of alignment**

TROWELS BLADES WEARING UNEVENLY
- **Spider plate seized**
- **Arms bent**
- **Adjusting screws (carriage bolts) incorrectly set**
- **Floating disc not evenly attached to the blades**

MACHINE JUMPS ON FLOOR
- **Concrete hardened on bottom of spider plate**
- **Trowels unevenly worn/bent**
- **Spider plate seized**
- **Spider plate loose**
- **Trowel arms bent**
- **Adjusting screws (carriage bolts) incorrectly set**
- **Mainshaft bent**

PITCH CONTROLS WILL NOT OPERATE BLADES
- **Cable broken or out of adjustment**
- **Pressure plate assembly contaminated with concrete debris**
- **Slot screw missing (under-side of handle)**
- **Spider plate seized**
- **Pressure plate and/or yoke arm broken or badly worn**
- **Hand crank adjuster malfunctioning**

BELT WEARING RAPIDLY
- **Belt is too tight**
- **Pulley out of alignment**
- **Wrong belt/defective belt**
- **Clutch sticking**
- **Gearbox seizing**

OIL LEAKS

a) Top of gearbox
   - **Gearbox seal warn**
   - **Engine leaks**
   - **Too much oil in gearbox**

b) At mainshaft or countershaft
   - **Shaft and/or seal worn**
   - **Retaining screw(s) loose**

TROWEL BLADES WILL NOT TURN
- **Yoke arm broken**
- **Key sheared**
- **Gearbox malfunction**

SPECIFICATIONS

Model	Path	Power Source (gas option)	Float Blade Size	Finish Blade Size	Combination Blade Size	Pans Flaots	Pans Flaots	Operating Weight
B424 (Edging)	24" (60 cm)	4 hp Honda OHV 4 hp Robin OHV	N/A	4.75" x 9" (12 x 23 cm)	N/A	24" (60 cm)	138 lbs. 63 kg	Up to 110 lbs. (50 kg)
B430 (Edging)	30" (76 cm)	5.5 hp Honda OHV 6 hp Robin OHV	10" x 30" (25 x 28 cm)	6" x 10.5" (15 x 26 cm)	6" x 10" (15 x 25 cm)	30" (76 cm)	184 lbs. 84 kg	Up to 145 lbs. (66 kg)

TECHNICAL INFORMATION

B424, B430 EDGER TROWEL	
Overall Dimensions (WxHxL) Shipping Dimensions Shipping Weight	29 1/2" x 58 1/2" x 36" (750mm x 1490mm x 910mm) 39" x 40" x 31" (1000mm x 1020mm x 790mm) 157 lbs (71 kg) ~ B424 192 lbs (87 kg) ~ B430
Blade Speed (RPM) Engine Speed (RPM)	70 min – 125 max 3600
Clutch Type Variable Speed	Centrifugal Yes
Gearbox Oil Gearbox Oil Capacity Engine Fuel Engine Oil Alert Cooling Starting	Shell Tivela Compounds A or similar type 10.1 oz. (0.3 L.) Gasoline – Unleaded Yes Air Recoil Starter - Manual
Dead-man Safety Switch Fuel Capacity (approximately) Running Time (approximately)	Yes 0.66 Gal. (2.5 L) 2 ½ - 3 hours
Number of Blades	4
Average acoustic power (dB) Average acoustic pressure (dB) Acoustic pressure on operator (dB) Vibration value on the handle (aw)	103.2 88.8 89.1 7.0
Options	Hoist Hook Folding Handle

- *Power rating conforming to DIN 6270 & ISO 3048/1 Std.*
- *RPM results may vary by engine option.*

Declaration of Conformity / Certificat de conformité / Gelijkvormigheids certificaat Declaración de Conformidad/Declaração de Conformidade/Dichiarazione Di Conformita

We: Bartell Morrison Inc.
375 Annagem Blvd.
Mississauga, Ontario, Canada
L5T 3A7
Tel: 905-458-5455 Fax: 905-458-5484

Declare under our sole responsibility that the product to which this declaration relates is in conformity with the following standard(s) or other normative documents.
Déclarons sous notre responsabilité que le produit cette déclaration est conforme aux normes suivantes ou d'autres documents habituels.
Verklaren onder onze verantwoordelijkheid dat het product naar welke de verklaring verwijst conform de volgende standaards of anders gebruikelijke documenten is.
Declaramos bajo nuestra única responsabilidad que el producto en lo que esta declaración concierne, es conforme con la siguiente normativa u otros documentos.
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Dichiariamo sotto la ns. unica responsibilita che il prodotto al quale questa dichiarazione si riferisce, è fabbricato in conformità ai seguenti standard e documenti di normative.

EN 349:1993	Safety of Machinery - Minimum gaps to avoid crushing of parts of the human body.
EN 418:1993	Safety of Machinery - Emergency stop equipment, functional aspects - Principles for design
EN 12100-1:2003	Safety of Machinery - Basic Concepts, general principles for design - Part 1: Basic Terminology, methodology
EN 12100-2:2003	Safety of Machinery - Basic Concepts, general principles for design - Part 2: Technical Principles
EN ISO 4872:1978	Acoustics - Measurement of Airborne noise emitted by construction equipment intended for outdoor use - Method for determining compliance with noise limits.
EN ISO 5349-1:2001	Mechanical vibration. Measurement and evaluation of human exposure to hand-transmitted vibration. General requirements
EN ISO 5349-2:2001	Mechanical vibration. Measurement and assessment of human exposure to hand-transmitted vibration. Practical guidance for measurement at the workplace.

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No sequimento das clausulas da Directiva(s):
Seguendo quanto indicato dalla Direttiva(s):

98/37/EC	Machinery Directive
2000/14/EC	Noise Directive
2001/95/EC	General Product Safety Directive
2002/95/EC	Reduction of Hazardous Waste Directive

Technical Characteristics:
Caractéristiques techniques:
Technisch gegevens:
Características Técnicas:
Caracteristicas Técnicas:
Qualitàs di tecnico:

Model Modéle Type Modelo Modelo Modello	MachineSerial Number Numéro de Série machine Serienummer machine Máquina número de série Numero de serie da maquina Numero di seria la macchina	Engine Serial Number Numéro de Série moteur Serienummer motor Motor número de série Numero de serie do motor Numero di seria la motore	Weight Masse Gewicht Masa Massa Massa
			Lbs (kg)
B436 Walk Behind Power Trowel			125 (56.8)

Noise Level Puissance acoustique Geluidniveau Nivel Sonoro Nivel del Ruido Potenza Acustica	Pressure level Pression acoustique Geluidsdrukniveau Nivel Acustico Pressão Acústica Pressione Acustica	Vibration level Niveau de vibration Vibratieniveau Nivel de Vibracion Nivel de Vibração Livello di Vibrazione
Lwa (dB)	Lpa (Db)	a_{hv} (m/s^2)
98	99	1.5

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The authorized representative is:
Le représentant autorisé est:
Gemachtigd vertegenwoordiger is:
La representación autorizada es:
O representante autorizado é:
Il rappresentate autorizzato:

Mr. Robert Leggitt
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Signature of Authorized Person:
Signature de la personne autorisée:
Handtekening van gemachtigd persoon:
Firma de la persona autorizada:
Assinatura de pessoa autorizada:
Firma della persona autorizzata:

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Titulo da pessoa autorizada:
Posizione della persona autorizzata:

Manager - Engineering

Date and place of issue:
Date et place d'émission:
Datum en plaats van afgifte:
Fecha y lugar de emision:
Data e lugar de emissão:
Data e luogo di emissione:

09.01.2009

Mississauga, Ontario, Canada

NOTES